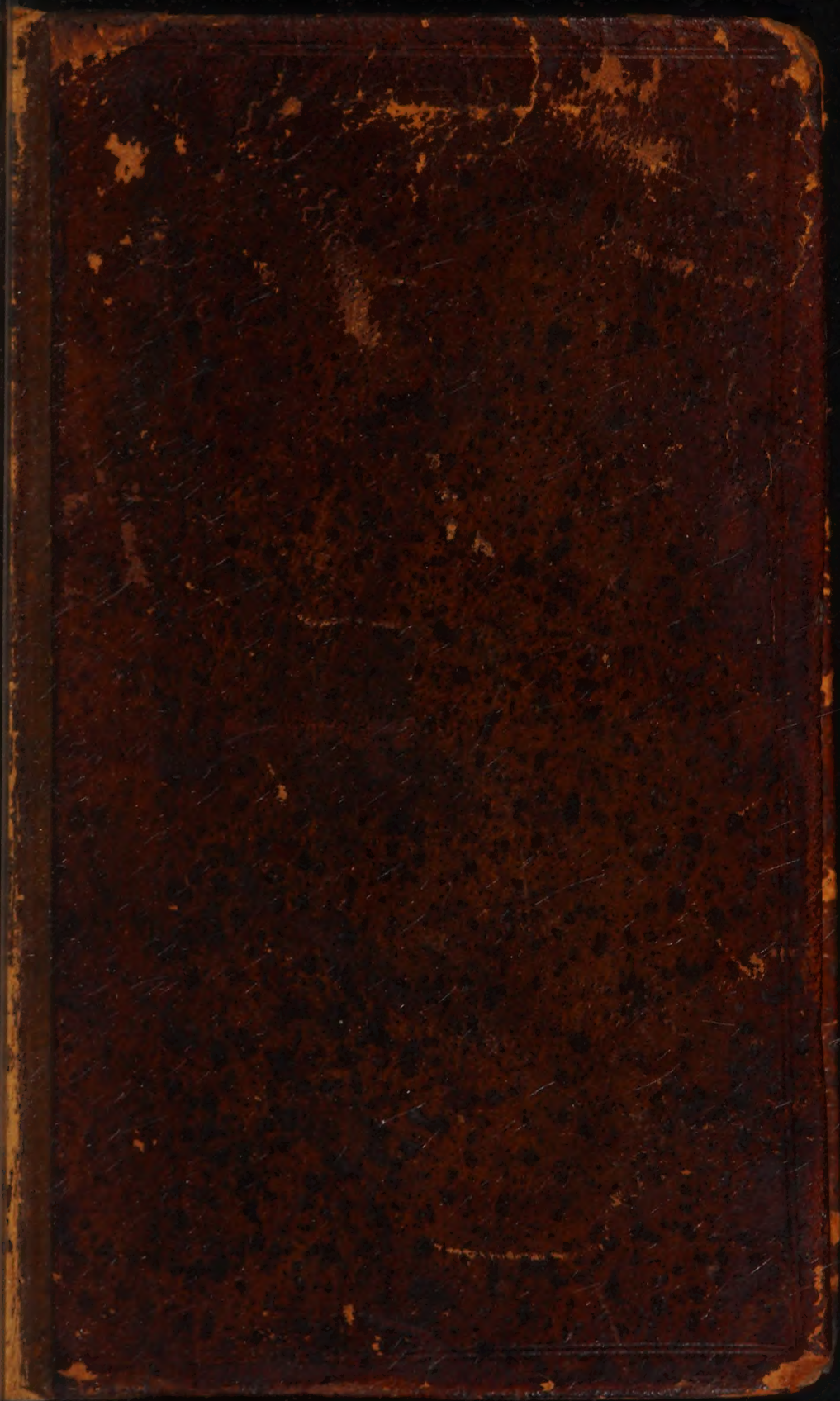




COLBATCH
ON
ALKALY
&
ACID.

1696.





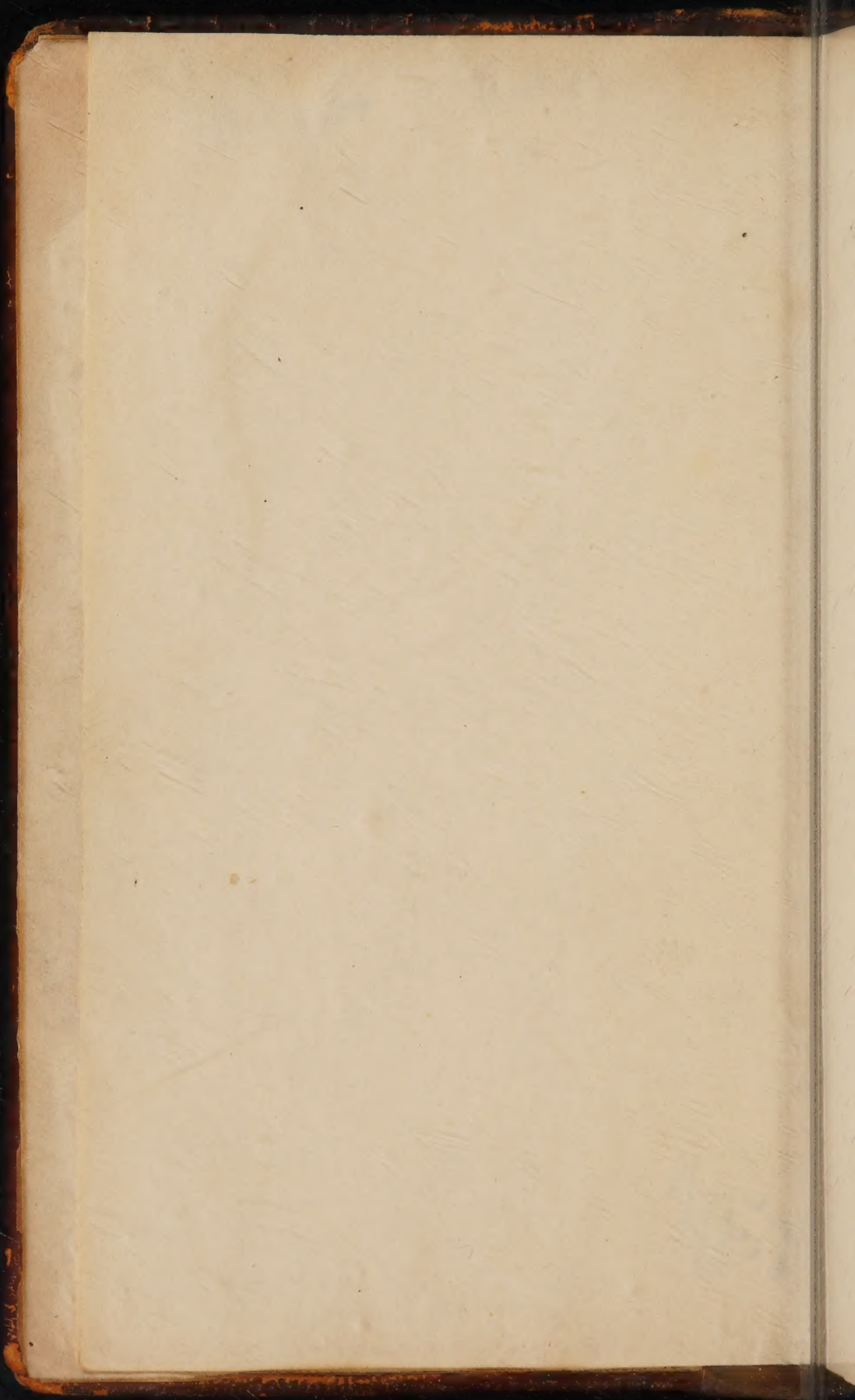


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A
Phyfico Medical
E S S A Y,
CONCERNING
ALKALY and ACID,
SO FAR

As they have relation to the Cause
or Cure of DISTEMPERS;

WHEREIN

Is endeavoured to be proved, that
Acids are not (as is generally, and
erroneously supposed) the Cause of
all or most Distempers; but that
Alkalies are.

TOGETHER

With an Account of some Distempers,
and the Medicines, with their Prepa-
rations, proper to be used in the Cure
of them:

AS ALSO

A Short Digression, concerning Spe-
cifick Remedies.

By JOHN COLBATCH Physician.

LONDON, Printed for *Dan. Browne* at
the *Black Swan* without *Temple-*
Bar, MDCXCVI.

29510



To the Right Honourable
Sir HENRY BELLASIS,
Lieutenant-General
O F
His Majesty's Forces.

Honoured Sir,

Dedications are at this time grown so much in Fashion, that a Book which appears in the World without one, is scarce look'd upon by any body ; people thinking that the Author, who omits

omits a thing so generally practised, is altogether destitute of a Friend who is capable of protecting and countenancing him; and for that very reason only, let the merit of the Book be never so great, few people will give themselves the trouble of Reading any more than the Title Page alone. To prevent which, and at the same time to manifest my Gratitude for the manifold Favours you have been pleas'd Generously to heap upon me, I have presumed to prefix your Name to the following Essay. I cannot flatter my self so far as to think there is any thing in it worthy to entertain a Person of Your
Parts :

Parts : But since it comes from
one who is filled with a sense
of Gratitude, I have some
reason to hope, that it may
meet with a kind Acceptance;
I very well knowing, that small
things have sometimes a Value
set upon them, especially when
they are made the Offerings
of Respect, Esteem, and Gra-
titude. It would be too great an
Honour to me, to tell the World
with what readiness you have
appeared to Serve me at those
times when I have stood most
in need of your Assistance :
For which I cannot better ex-
press my Gratitude, than by a
silence full of Admiration :
For let me say never so much,
I should

I should still fall short of my
Duty. This Piece is properly
Yours, it being under Your
Umbrage that I have been
enabled to Write it. And if,
out of Your wonted Genero-
sity, You shall be pleased to
cast a favourable Aspect upon
it, it will afford the greatest
satisfaction to him, who is,

Great Sir,

Your most Obliged,

and most Obedient Servant,

J O. C O L B A T C H.

TO THE
READER.

IT may be much wondred at, that I should in the least presume to meddle with this Subject, that hath already been handled by so many very Great men. But when it shall be well considered, in how much different a manner I have treated upon it, from what hath been hitherto done, I question not, but by the generality of Mankind, I shall be very easily excused. And

A 2 — though

The Preface

though there may be many imperfections met with : Yet when the design of the thing (it being to undeceive people in a Matter, upon which depends the Health and Welfare of all) shall be well lookt into ; I doubt not, but by the candidly ingenious, my Undertaking will be well approved off : Though I expect to meet with a great number of Carpers, especially amongst those, who by long custom, and for want of due consideration, have embraced a contrary opinion to that of mine.

It is scarce possible for a man to converse with a Person that is ill, let the Distemper be what it will, especially those, who have any smattering in Physick, which most people now a days have, but they presently

to the Reader.

sently tell you, that their blood is so very acid, that unless that acidity can be corrected, it is impossible for them to be well: And accordingly they presently flye to the use of Alkalious Medicines, as Powder of Pearle, Corral, Crabs eyes, or something of the same nature, and if they send for a Physician, which few people do, till they have first used a vast Farrago of Alkalious Medicines; and if the Physician chanceth to take the same method, that they themselves had before done, they presently cry out, we have already taken such vast quantities of the beforementioned Medicines, that unless you can think of some more generous and efficacious Alkalies, the Acids complained off, are not to be mortified: Which has

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put men to great shifts either to find out new, or to disguise the old ones : yet after all, the Patients expectation has been frustrated, their Distempers not being to be cured, by Medicines of that Nature, but on the contrary either to be exasperated, or so confirmed, that they will scarce ever admit of a cure at all, especially if the Distemper be a Chronick one.

I must confess, that I my self have formerly been a stickler for Alkalies, (being carried away by the common vogue of Mankind) and seeing the insufficiency of common Alkalies, have put my self to great expence, besides a vast deal of trouble, to Volatilize Salt of Tartar, &c. till at last I was fully satisfied, by daily observation, that Alkalies, though never
so

to the Reader.

so exalted, would do me very little, if any service at all in the cure of most Distempers.

There are some particular preparations of Steel and Antimony, some of which I have given an account off, the which giving as Alkalies, and as they are generally believed to be, did me very great service. But since I have well examined them, instead of Alkalies, I find them to be most noble Acids, and the Distempers cured by them, did not (as I formerly supposed) proceed, from any abundance of acid Particles in the Blood or Juices. But on the contrary from Alkalious ones, as I suppose, most Distempers do, and as I have endeavoured to make appear by many Observations.

I expect a great many will cry out

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as some have already done, that this Man was bred an Apothecary, and shall he pretend to be a reformer in Physick and Surgery.

To which I answer, that their Charge I own, confessing my self to have been an Apothecary, and was bred up under a man (though otherwise a very honest and just Person) that was not the greatest Master in his business. I taking notice of my Masters imperfections, applied my self, for four years of the time I lived with him, to diligent Study, in order to become Master of those things, I was sensible my Master could not teach me, And after I had well considered, and in some measure, become a Master in Pharmarcy, which is the Foundation, upon which the Practice

to the Reader.

Practice of Physick is built: I was at last induced to look into the Body of Physick it self, and though I don't pretend to absolute mastership, yet I shall endeavour, and think my self oblidge in Duty, both to God and Man, to improve my small Talent to the best advantage I can, let Carpers say what they will.

The greatest part of my time, I lived in Worcester, and although I kept an Apothecaries=Shop, yet my Dependance was wholly upon my own Practice, the success I had in which, is sufficiently known in that Country. And for a Character, I desire no other or better, then the generality of those People will give me, of whom I know not one, that can or will speak amiss of me, for any thing, but my
coming

The Preface

coming away from them, and leaving such flourishing, thriving business, that scarce any man of my Age ever had before me. For which many of them have blamed me. But the reasons of my leaving that place, are best known to my self.

And since I have been speaking concerning my own being bred an Apothecary, I shall enlarge a little upon that subject, giving a short account of the necessary qualifications of one of that Profession, and then shall leave every body to judge, whether a man so qualified has not made a large step, towards being a good Physician.

First, An Apothecary must be very well acquainted with the Vegetable Kingdom, not only to know the faces of Plants, but their Natures and
manner

to the Reader.

manner of Operation upon Humane Bodies, otherwise, how can he tell how to handle them, so as to make his Compositions as they ought to be. And indeed every Physician supposes the Apothecary so qualified when he Prescribes to his Shop; for in his Bill, he seldom directs the method of making his Medicines, but only orders such and such Medicines, knowing or at last supposing them (for every Physician ought to be well satisfied in the Abilities of an Apothecary, before he prescribes to him) to be before hand skilfully prepared. For let a Physician Prescribe like an Angel, if the Apothecary through his ignorance in his business, be destitute of good and well prepared Medicines, both Physician and Patient are frustrated in
their

The Preface

their expectations, the which I am affraid to frequently happens.

Secondly, He must well understand the Nature and Operation of Minerals and Mettals, which is not to be learnt in the Dispensitary, nor any other way to be attained, but by much reading and hard labour in the fire.

Thirdly, He must understand the Nature of Animal Bodies also, amongst which is comprehended that of Man, there being scarce a part of whole Body, but what is sometime or other to be used as Medicine: But before it is used, the Apothecaries skill is for the most part required for its preparation, in order to which, he ought first of all, very well to understand its Nature.

All

to the Reader.

All the forementioned qualifications, and a great many more, are multitudes of Apothecaries in England endowed with : And to the Honour of the Apothecaries of London, be it spoken, I have generally found the meanest Shops in that Eminent City, better fraited with good Medicines, then any of the most Eminent in all Holland, or the rest of the Low-Countries.

I might add a great deal more on the behalf of that noble Profession, which although, I my self have left it off, yet still have a high value and esteem for it, and think an honest and skilfull Apothecary, is as serviceable in the Common wealth, and deserves as much incouragement, and is as highly to be valued, as any man whatsoever.

The

The Preface

The Famous Ettmuler, was not ashamed to own, that he served eight years to an Apothecary. Yet for all that, he afterwards became one of the eminentest Physicians of Europe. And for ought I know, the loss of him at the Age he died, from whom so much might rationally have been expected, deserves as much to be lamented, especially by Physicians, as the loss of any one private man.

I have not given a full account of those Distempers I have treated on, but given some short hints concerning them, so far as was necessary to clear my way as I went.

I have in the following Essay, made reflections upon the Practice of some particular men only, my design not being in the least, to reflect upon
that

to the Reader.

that Noble Society, or Body of Men, or any Member of them, I mean the Colledge of Physicians, whom I own to be the Glory of our Nation, and of the whole World, and for whom I have the greatest reverence and respect imaginable.

I don't pretend to be the sole Author, or first broacher of this Doctrine of Acids, in the cure of Distempers, it having long since been the opinion, of some of the most happy Practitioners in the World, and is at this time embraced, by several of the greatest men, that perhaps our age affords.

I wrote this Essay at a place, (during the first three Weeks of the Siege of the Castle of Namur, in which time, we had not many wounded men, brought to our Field-Hospital) where I had
not

The Preface

not the opportunity of consulting Books, nor had I the benefit of coming at my one Papers, wherein I had from time to time set down my Observations upon this Subject: For want of which I have only made use of those that occurred to my memory, which is a very treacherous one, and so they are not so numerous nor exact as I designed them: But however for some reasons I am willing to venture them abroad as they are, they not being in the least designed to entertain the Learned, but to undeceive the Multitude.

I don't pretend to be so great a man, nor to deserve so well of Mankind as Helmont, Paracelsus, &c. have done, yet they treading out of the common Paths, and acting upon different Principles, from the rest of Mankind:

to the Reader.

Mankind: They did not want those, who maligned and hated them, and used all the opprobrious Language in the World against them. Therefore why should I, who don't in the least pretend to have arrived to those great Perfections, that they had attained to, take it amiss to be abused and evil spoken of.

Authority has in great measure, blinded some mens understandings, and sealed up their eyes. There being still a sort of men, that pay too submissive a deference to ancient Opinions, tho' never so contrary to reason, that they will not open their eyes to see or understand the truth. There are still men who write against most known Truths, as against the gravity and Elastick force of the Air, and

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other

The Preface

other things of the same Nature. This Doctrine of Acids, and that I formerly wrote concerning the Cure of Wounds, are likewise of the number of those that are unfortunate, meerly for want of being born old and with a venerable Beard.

When a Book (says the Famous Malbranch) is first to appear in the World, one knows not whom to consult to know its destiny. The Stars preside not over its Nativity : Their influences have no operation on it ; and the most confident Astrologers dare not foretel, the divers risques of fortune it must run. Truth not being of this World, Cælestial Bodies have no power over her ; and whereas she is of a most spiritual Nature, the several positions or combinations

to the Reader.

tions of Matter, can contribute nothing, either to her establishment or ruin. Besides the judgments of men are so different in respect of the same things, that we can never more hazardously and imprudently play the Prophet, then in presaging the happy or unfortunate success of a Book. So that every man who ventures to be an Author, at the same time throws himself, at the Readers mercy, to make him, or esteem him, what he pleases. But of all Authors, those who encounter with prejudices, ought most infallibly to reckon upon their condemnation. Their Works sit too uneasie upon most mens minds, and if they escape the passions of their enemies (which I have not done) they are obliged to the Almighty

B 2 force

The Preface

force of Truth for their protection.

However time will do every man Justice, and Truth, which at first appeared a Chymical and ridiculous Phantasm, by degrees, grows sensible and manifest. Men open their eyes and contemplate her, they discover her charms and fall in love with her.

The Books that encounter with prejudices, leading to Truths through unbeaten Paths, require much longer time than others, to obtain the reputation their Authors expect them. And I find it but too true in my self, that all those Writers who combat with prejudices, are much mistaken if they think by that means, to recommend themselves to the favour and esteem of others. Possibly some few, will speak
honourably

to the Reader.

honourably of them when they are dead. But whilst they live, they must expect to be neglected (I speak experimentally) by most people, and to be despised, reviled, and persecuted, even by those, who go for the wisest and most moderate sort of men.

There is nothing but Truth contained in my *Novum Lumen Chyrurgicum*, and I did think that I should have been put into a condition this Summer, to have made it evidently appear. But instead of that, I have been abused and delivered up into the hands of my enemies, to do with me as they pleased.

My *Novum Lumen* is built upon a pair of Medicines, the which as yet I think not fit to make publick, but here lyes my misfortune, common

to the Reader.

to all those, who make new Discoveries. A great many believe the Truth of what I have said, and that my Medicines are capable of performing what I have promised for them. But amongst the number of those, who are so ingenuous as to believe matter of fact, a great many say, this man was not the Author, others that they have the same Medicines, and some that they imparted them to me. As for these Gentlemen, I can very easily excuse them, I very well knowing that it is the Nature of most Men, not to allow any Person the honour of his own Discoveries, they thinking that thereby, their own Glory is eclipsed. But there are another sort of Men, whose Interest, will not give them leave to embrace the

to the Reader.

the Truth, and for the same reason they do what in them lies, to keep others from so doing. And the greatest part of Mankind not being judges in my cause, any further then their eyes direct them, and it being altogether impossible, that there should be any great number of Spectators, by which means I am evil spoken off by many, upon no other grounds, then because an interested party have told them, that I have pretended to what I can't perform.

I expect the mouths of my enemies will be opened very wide against me, but I have already born so much, that I can with a great deal of contentedness bear with the greatest indignities that can be offered me : My great satisfaction being, that I have

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peace in my own breast, having proposed nothing but what tended to the good of Mankind : And very well knowing, that if my Medicines are faithfully and skilfully used, they are capable of performing much more than I have promised for them ; but the best Medicines unskilfully used, or with a design that they should not succeed by prejudiced Persons, may be brought into disgrace.

The following Essay I humbly offer to the candid Readers serious consideration, nothing doubting but that it will meet with a favourable reception from some few. And I must needs say, that I more value the good Opinion and good Word of one candidly ingenuous, than all that can be said against me, by ten thousand clamorous

to the Reader.

clamorous ill-natured Persons. I have endeavoured to act and behave my self so, as to deserve no mans ill Word; but if I am abused and my Undertakings misrepresented without any just cause, I shall never break my heart about it, I very well knowing that the justice and integrity of my Undertakings, will one time or other be made appear.

From my House in
St. Anns Court, in Dean-
Street, near Sobo-Square,
October the 12th. 1695.

CHAP.

(1)

A

Phyfico Medical
E S S A Y, &c.

C H A P. I.

Of the Small-Pox.

THE first thing I shall begin with, is the disuse of Alkalies in the Small-Pox, that fatal Distemper to three Kingdoms, and even all *Europe*: In that, by the means of it, God was pleased to deprive us of a Princess, whose worth was such, that a value sufficient can never be set upon it, and whose loss sufficiently be lamented.

It is a common practice, both
of

of Nurses and the generality of Practitioners, as soon as they perceive the least Symptoms of this Distemper, to give either *Gascons*, *Counress of Kents*, *Lapis de Goa*, or some other Testaceous Powder, which are known Alkalies. The one Party as they pretend to drive the Malignity from the Heart; the other to correct the Acidity which they conjecture (for beyond conjecture they can't go) to be in the *blood*.

In the subsequent Discourse, I shall endeavour to shew, upon what false suppositions both Parties go.

For the first sort, it will not be worth while to spend much time about them, by reason every one will readily grant,
that

that they generally act upon wrong and mistaken Notions. For, for any Malignity to be lodged in the Heart, more than any other part, is altogether impossible, by reason that the Blood moves ten times at least faster through the Heart than any other part, the Lungs excepted : For the Cavities being large, no Stagnation is to be feared, and so by consequence no danger. If there be any danger of the Malignities settling any where, it must be in those parts where the Vessels are very small, and the Blood moves but slowly, which must be near the extream Parts.

For the second sort, who give
the

the same Medicines, but with quite different Intentions ; I shall endeavour to prove, that their suppositions are altogether as false and groundless as the former. They give their Alkalious Medicines, to correct the Acidity they suppose to be in the Blood, and which is, as they pretend, the occasion of all the ill Symptoms that attend People in the Small-Pox : Now I could never hear of any one, that by Analyzing the Blood of Persons in the Small-Pox, that could ever find the least footsteps of Acidity in it ; though on the contrary it doth appear, after many trials, that the Blood of such Persons, doth more abound with

with Alkalious Particles, then that of sound People : So by consequence, the giving of Alkalies in this case must be at least superfluous, if not highly pernicious, and as I have frequently observed, and shall instance in some particulars.

The cause of the Small-Pox, common with most other Fevers and acute Distempers, I suppose to be, from a quantity of such Particles, being some way or other admitted into the Blood, which being of a quite different Texture from that of the Blood, and so not capable of being mixt with it, causes a hurry and disorder there, which is what I
* else-

* *Nov. Lsm.*
Chyr.

* elsewhere observe, to be the occasion of both continued and Symptomattick Fevers. Now it is well known, that a Fever always precedes the Eruption of the Pustles in the Small-Pox: And when the Pustles are well come out, that is, when the Heterogeneous or Particles of a different Texture from those of the Blood, are thrown out to the Surface of the Body, then the Fever ceases.

Now to assist Nature in throwing those Heterogeneous Particles out of the Blood, to the extream Parts, which they pretend to be mightily hindred, by a great quantity of Acids in the
 Blood,

Blood, they give repeated, and large quanties of Testacious, Alkalious Powders, and other Diaphoreticks: Which indeed seldom fail of answering their Intentions, in throwing out large quantities of Pustles, even more than Nature is able to supply or bring to maturity; and if she doth chance to cope with them, is the only occasion of spoyling so many angelick Faces, as we every day observe. But the spoyling of Faces is not all, for besides the throwing out of so great a quantity of Pustles, by breaking off the Globules of the Blood, when it is brought to the Cataneous Glands, instead of those Glands separating the Ex-
C cremen-

crementitious Serum, which in a State of Health, is all or most part of it, to be carried off by sweat or insensible transpiration, but at this time to supply the Pustles till they are brought to maturity. I say by breaking off the Globules of the Blood, when it is in its confused State, Serum and all together ; the Excrementitious Serum only, according to the Rules of Nature, ought to be separated, those Glands being so many strainers, adapted to receive into them the Serum only, and not the least drop of Blood, when it is in its natural State, and its Globules unbroken. I can liken the separation of the Serum from the Blood, by
 the

the mediation of the cutaneous Glands, to nothing better, then to a mixture of *oyl* and *water*, made by continued agitation, when that compound mixture seems to be one intire white liquor, tho' with good eyes or a good glass, the *oyl* may be seen floating in the Water in small Globules, as the Blood doth in the Serum, as I elsewhere * observe: **Nov. Lum*

Yet this mixture of *Chyr*.

Oyl and Water, let it be done never so exactly, if it be poured into a funnil, lined with brown Paper, wet before hand, the Pores will be so disposed, as to let all the Water run through, though not the least Particle of the *Oyl* ; yet if there be some

Alkalious Salts, boyled with this mixture of Oyl and Water, the Globules of the Oyl will be so broken, as to pass readily with the Water, through the forementioned brown Paper, which before it would not in the least do. In like manner the Globules of the Blood being broken, by the means of Alkalious Medicines, together with too great a quantity of Alkalious Particles, being before admitted into it, is by that means made capable of being received into the Cutaneous Glands, which is the only occasion of those purple spots upon the surface of the skin, not only in the Small-Pox, but
other

other Fevers, which spots seldom or never fail of being the certain Prognosticators of future Death.

But this is not all, for by the foresaid breaking of the Globules of the Blood, by Alkalious Medicines, these small broken Globules, getting into the small Meanders of the Brain, hinder the Motion of the Animal Spirits, through the Nerves, and so cause Deliriums, and all those fatal disorders of the Brain, that are but too frequently seen.

Likewise the Blood not being capable of being contained in its proper Channels, is the occasion of violent Bleeding at

the Nose, bloody Urine, &c. which are none of the best Symptoms, but what too frequently happen by the aforesaid means.

Besides breaking of the Globules of the Blood, and causing the ill Symptoms before-mentioned, with many others, I don't think fit here to enumerate : By their Diaphoretick quality, there is so vast a waste made of the Serum of the *blood*, that there is not a sufficient quantity left, to supply and bring to maturity, those many Pustles, (even more than Nature designed) that those Medicines alone had thrown out : So that about the ninth, eleventh, or thirteenth day,

day, for want of a sufficient quantity of Serum to supply them, the Pustles fall, and the Acrid corrosive matter, being absorbed into the Blood, causes secondary Fevers, which oftentimes prove of very dangerous consequence. I might expatiate a great deal more, but I design brevity.

It may be said, you have gone far enough in condemning the ordinary Practice, as to the use of Alkalies and Diaphoreticks, not having substituted a better and safer Method and Medicines in their room: but not too fast, that follows in its proper place.

The Small-Pox, is a Distemper, that requires the giving of

as few Medicines, as in any Distemper whatsoever, unless in some extraordinary cases : But yet I think it the most unreasonable thing in the World, that People (as is the common practice in this case) should be left to the sole management of old Women and Nurses ; which thing alone, I verily believe, has been the destruction of more people, than the Sword it self. And although but very few Medicines, as I said before, are generally necessary, yet the eye of a careful, skilful Physician, and that from the beginning, is as convenient as in any Distemper whatsoever, that he
 seeing

seeing Natures operations, may also see the fit time, when to give the Medicines requisite. I confess I have heard some people complain, that such a Physician has had so many Fees, and never wrote one Bill for them ; for such people, let me tell them, that they complain without cause, for in many cases, especially in this, the Physician deserves his Fees better for not writing at all, then for so doing.

I own my self to be a profest Chymist, and in many things, though not all, a Disciple of *Helmont*, and know nothing in this World, so delightful to me, as Chymical Operations :

Operations : Yet in this case, nor indeed in scarce any acute Distemper, do I judge Chymical Medicines to be absolutely necessary, though many of them may do well, and are sometimes to be used : But I don't know any reason we have to flye to elaborate Preparations, when Nature has provided Medicines ready to our hands. Acids are the things skilfully and timely given, which I have seen, not only by my own, but by other Great mens Practice, to be the only safe, effectual, and seldom or never erring Medicines in this Distemper, so that they are rightly timed,
and

and given with discretion ;
 and why should we flye to
 Acids Chymically prepared ,
 when as I said before, Nature
 has provided to our hands,
 Oranges , Lemmons, Cittrons,
 Limes , and a great many
 more, not necessary here to
 mention, which for the most
 part answer our Intentions,
 so that they are skilfully gi-
 ven, by an experienced hand.
 And as, I hope, I have given
 sufficient reasons to dissuade
 the use of Alkalies and Dia-
 phoreticks , from the many
 fireful effects that daily at-
 tend their use, so I hope to
 give as cogent ones to en-
 force the use of Acids, from
 the

the laudable, good effects, I have seen from them; for in five hundred (at least) Patients, that I have had of all Qualities to do with, in this Distemper, in *Worcester* and *London*, where I have been called in at the beginning of the Distemper, I do not know that I have had one that has died or been disfigured; nay, some that have been brought into very ill circumstances, by the precedent use of Testaceous, Alkalious Powders and Diaphoreticks, I have retrieved from the jaws of impending death, by the use of fit and proper Acids.

It may be wondred at by some, that I make a difference between Testacious Powders and Diaphoreticks, when the Testacious Powders, especially the compound ones, as *Gasecons Powder*, Countess of *Kents*, *Lapis de Goa*, &c. are accounted Diaphoreticks, and indeed are so : But the reason why I do it, is, because for the most part besides the said Alkalious Powders, other more forcible Diaphoreticks are also given.

I having in short given some hints concerning the cause of the Small-Pox, I need not again repeat them, so I shall immediately proceed to the

the method I take in the cure of it, which being according to Natures dictates, is short and easie: For Nature in performing her Operations, makes short and easie cuts, it being in the cure of Diseases, as in finding out and giving an account of the *Phænomena* of Nature by Philosophical Disquisitions; they that go upon the fewest Principles, generally discover most of her secrets, and are capable of giving the best and most rational account of them: Whereas they that are clogged with multiplicity of Principles, and wandering in tedious, long, and uncouth Paths, thinking thereby

by to get admission into Nature's Cabinet, after they have spent much time, and taken a great deal of pains, at last sit down as wise as when they began, and not one jot the wiser.

First of all, when I come to a Patient who has the Symptoms of the Small-Pox upon them, which are so well known, even to Nurses, that I need not spend any time about them. In the first place, if there be any manifest signs of the Stomachs being oppressed and clogged with viscid Matter, as generally it is, I first of all give a gentle, easie vomit, suitable to the age

age and constitution of the Patients, and after that hath done operating some *Syrupus E Meconio*, or any other pro-Opiat in due proportion. Afterwards, to allay the hurry and disorder in the Blood, occasioned by the intromission of Hetrogeneous Particles, which Nature is endeavouring to throw out : And to confirm the Texture of the Blood, so as to enable it to rid it self of its enemy, I give large quantities of any of the following Julips.

Take of fresh juice of civil
Oranges six Ounces, Barly Water
one quart, double refined Sugar
as

as much as is sufficient to make it grateful, or to those Palats or Stomachs (which are very few) to whom juice of Oranges is ungrateful.

Take of juice of Lemmons, or Lime juice that is not musty, four Ounces, Barly Water one quart, Cinnamon Water half an Ounce, Syrup of Rasberries as much as is sufficient to make it grateful: Or,

Take of Barly, Cinnamon Water one quart, juice of Lemmons four Ounces, Syrup of Wood-Sorrel three Ounces, mix and make a Julip.

Of any of these Julips, I give my Patients to drink

D

as

as oft and as freely as they please : Drinking likewise small Beer with juice of Oranges in it, in as large quantities as they please. But during the whole course of the Distemper, all sorts of flesh ought to be avoided.

To poor people, instead of the aforesaid Julips, and to save charges, I order them large quantities of small Beer, acidulated with Oyl of Vitriol, or instead of that Vinegar or Verjuice Posset drink, to be drank frequently, and in large quantities.

But if in the beginning
or

or at any other time, I find the Brain very much disturbed, and the Patient delirious, I for the most part find it absolutely necessary to let Blood, and that in a good quantity ; and then to flye to the use of more powerful Acids, giving the following Julips in large quantities, which presently calms the violent Motion and Agitation of the Blood and Spirit , and sets all to rights in a small time.

Take of Barly, Cinamon-wa-
 r one quart, Syrup of Ras-
 berries three Ounces, Volatile
 D 2 Spirit

Spirit of Vitriol one Dram and half, or mix and make a Julip.

Take of Barly, Cinnamon-water one quart, Syrup of Raspberries three Ounces, Gas Sulphuris as much as is sufficient to make it sharp: Or,

Take of Barly Water one quart, Epidemick Water two Ounces, Syrup of Wood Sorrell three Ounces, sweet Spirit of Niter or Vitriol two Scruples: Or,

Take of red Rose Leaves six Drams, put them into an earthen or glass Vessel, pour upon them one quart of boiling Water, let them stand covered for some time, then pour on them two Scruples of Oyl of Vitriol, or Oyl of Sulphur per
Cam.

Campanam, when cold, strain out, and add as much double refined Sugar as is sufficient to make it grateful.

If at any time, I find my Patients Spirits languid and low, I then give three or four Spoonfuls of the following Cordial at due intervals.

Take of Aqua Mirabilis, Epidemick Water, of each three Ounces, Spirit of Citrons half an Ounce, Balm Water eight Ounces, Syrup of Gilliflowers one Ounce and half, mix and make a Julip.

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By this method, I have brought my Patients through the Distemper, without so much (almost) as the least uneasiness, or even confining themselves to their Beds, and without the least fear of a secondary Fever, which is that, which frequently proves of most fatal consequence.

After the Pustles are quite gone, I then take care to purge them well for five or six times, with gentle and easie Purges, after each Purge, giving an Hypnotick : After that I have done Purging, for some time I give corroborating, strengthen-

strengthening Medicines, to confirm the Texture of the blood and Juices, and bring them to their natural State, by which means I prevent ill accidents, that sometimes succeed the Small-Pox.

I have not given a full History of this Distemper, that being contrary to my design, but endeavoured to deter people from the use of those Methods and Medicines that have proved fatal to so many, and to advance a better and safer Method and Medicines in their room : Yet I would not have people, wholly to rely upon the Method I have here

set down, but always have a Physician by, to obviate any unusual Symptoms, that may chance to appear contrary to what generally do, and where life lies at stake, people can't be too cautious. But if the good old Woman and Nurles, in spite of all that can be said, will be still tampering, I must needs say this, that if my Method were exactly followed by every body from the beginning, without any variation, I verily believe that there would not one in ten die, that have formerly done by the use of Alkalies and Diaphoreticks.

As

As I have before endeavoured to explode the use of Alkalies, and to give my reasons for so doing, so I shall now endeavour to give some reasons for the Method I take, with the great use of Acids in this case.

As I have before observed, I judge the cause of the Small Pox, to be from an intromission of Heterogeneous; or Particles of a different Nature and Texture from the blood into it; by the means of which Particles, the blood is put into a very great hurry and disorder, in order to throw off its enemy,

enemy, and that the place that Nature designs the discharge of these Particles by, to be the cutaneous Glands. Now the inconveniencies, that I observed to attend the use of Alkalies, were the throwing out of more Pustles than Nature designed, the destroying of the Globules of the blood, and a waste of too great a quantity of Serum. I had before forgotten to mention one dismal effect of Alkalies and Diaphoreticks, and that is by destroying or breaking the Globules of the Blood, instead of regular Pustles being

ing thrown out to the Surface of the Skin, the divided broken Globules are together with the morbidick matter thrown out, as in the case of ——— and so causes an *Erispelas* or St. *Anthony's* Fire, which seldom or never fails of proving fatal.

Now I almost defie any one to say that he ever observed such Symptoms as these, if Acids were from the beginning used. For Acids are of that Nature, that they confirm the Texture of the Blood, which is that red substance, wherein is contained the

Dyo-

* *Nov. Lum.* *Byolynium* * or
Chyr. Lamp of Life ;
 by so doing, Nature is ca-
 pable of throwing out
 the extraneous Particles ,
 in a way suitable to it,
 and without the inconve-
 niencies that attend the o-
 ther method : For the
 Texture of the Blood be-
 ing confirmed, and mov-
 ing regularly and Natu-
 rally in its proper Channels,
 the morbifick Particles are
 only thrown out, and such a
 quantity of Serum left , as is
 sufficient to supply the Pusles
 and bring them to maturity
 without any danger of their
 staving, and the acrid
 Matter

Matter , being again absorbed into the Blood, and causing secondary Fevers : Besides the Globules of the Blood being kept together unbroken , there is not any danger of their being extravasated , and causing those fatal purple Spots. Nor of being thrown out together with morbidick Matter , and so causing an *Erisipelas* or *St. Antonies Fire* ; neither are Hemoragies at the Nose , Bloody Water, &c. in the least to be feared, nor by being admitted into the small Meanders of the Brain to cause

cause Deliriums, and those other Symptoms that attend it.

I might expatiate upon continued Fevers and some other acute Distempers : But that would be to be guilty of Tautology : For I assign but one general cause of them, though I own that the extraneous Particles, causing them, may be somewhat different, and according to the different size of the extraneous Particles, the parts affected may be different ; as in the Small-Pox, the size of the Particles are such , as to fit them to be thrown out by the cutaneous

taneous Glands to the surface of the Skin ; in other Fevers they are thrown out, sometimes one way, sometimes another, according to their size. For instance, sometimes they are thrown out by critical sweating, sometimes by Urine, sometimes by the Glands of the Mouth in spitting, and so on, according to the different disposition of the Particles causing the Distemper, being fitted to be discharged through the Pores of different Parts : And which ever way we find Nature enclined to do her work,

we

we must assist her in it, but not spur her on unless she be too sluggish, but must not, upon any account whatsoever, hinder or thwart her in her Operations.

In most continued Fevers, I have found Alkalies equally pernicious, as in the Small-Pox ; and Acids equally advantageous, the which I shall instance in one or two particulars.

After I came out of *Flanders* last year, being ninety four, having discoursed with a certain Physitian about a Fever that had that Summer raged in *London*, and of which many died ; he told me, that
when

when he found his Patients under such and such circumstances, that he as much gave them up for dead, as if a Dagger were run through their Hearts. I asked him what those Symptoms were, that rendred his Patients circumstances to be so very dangerous ? He replied, That when he found them delirious, and had Spasmes and Convulsions of the Nerves. I enquired of him, what Medicines he gave ? He told me, a Composition of *Gascons Powder*, *Virginian Snake Root*, &c. which was what he solely relied on, and which is the same or of the same Nature, with what is generally given in those cases.

I asked him whether he had never found his Medicine serviceable to him? He ingeniously confessed, that when his Patients were under the aforesaid circumstances, it never did him any service at all. I again asked him why he did not vary his Method? His reply was, It was a most noble Alkaly and Alexipharmick, and what was generally used, and therefore he did not think fit to vary from an Established Method.

A few days after, I was called into a Gentlewoman, exactly under the same Circumstances before related, she being delirious to the highest degree, had violent Spasmes and Convulsions
of

of the Nerves, and all other Symptoms of a Malignant Fever. Of her Life I did not despair, and by the plentiful use of proper Acids, all Symptoms soon vanished, and in a weeks time, she was fit to go abroad.

Besides this, I could instance a hundred cases of the same nature, but I design brevity.

I must own, that other Distempers may be complicated with the Small-Pox, and other continued Fevers and acute Distempers, or from a different constitution of the Air, &c. unusual Symptoms may appear, in which cases a general *method* must not be relied on, but recourse must be also had to proper Specificks.

C H A P. II.

Of the Scurvy.

I Am now come to treat upon the disuse of Alkalies in the Scurvy, that reigning Distemper, which few people are altogether free from, and is by most men accounted incurable, or at least, it for the most part proves so.

But here I expect the cry of all Mankind against me ; What ! say there is no Acidity in the Blood in the Scurvy ? What ! is it but an Acidity in the Blood that is the occasion of the breaking
ing

ing out of Scabs, Pimples, Blotches, &c. upon the Skin? What! but a sharpness and Acidity in the Blood, occasions those wandring Pains, and a thousand other Symptoms, that people labouring under that Distemper complain of?

My Friends, have a little patience, and I will presently make it appear to you, that those Symptoms are not occasioned by Acids, but from Acrid, Lixivious, Alkalious Particles, which I doubt not to evince by plain matter of fact.

First of all, by a Chymical Analysis, it doth appear, that the Blood of Scorbutick Persons, hath by much a greater quanti-

ty of Volatile, Alkalious Particles, then that of sound Persons, besides which some quantity, more or less, of a Lixivious fixt Alkaly, which, for as much as ever I could find, the Blood of sound Persons is altogether destitute of.

And by the way give me leave to add this. It is my opinion, that if Physitians would give themselves the trouble of Chymically Analyzing the Blood of Persons in all Distempers, and making nice Observations of the different substances to be obtained from it : By that means the cause of Distempers would be certainly known, and by consequence the cure of them

them much more certain, then now it is. But that I may return to my businels.

Another considerable Argument, besides that beforementioned, to prove that the Scurvy hath its rise from Alkalious substances in the blood, and not from Acids, is this which follows.

I have been frequently told, by some Seamen and Surgeons, that have been long Voyages at Sea, especially towards *China* and the *Indies*, that of a hundred Men that have been in a Ship, not two of them but have been almost eaten up with the Scurvy, their Skin squallid and full of blotches, their Gums eaten
away,

away, and their Teeth ready to drop out, Pains and Aches all over their bodies, &c. and yet upon their landing at *Cadiz* or thereabouts, where are plenty of Oranges and Lemmons, upon eating large quantities of them, in one Fortnights time, at farthest, scarce one hath failed of being perfectly cured. This is not a bare relation of one or two Persons only, but what is generally agreed upon and allowed by all people.

Although these moderate Acids plentifully used, may have such effects in that hot Country, yet I have not observed that in our cold Climate, they have always, always I say, the same effect, because

because in slight cases, they generally do very well ; yet in more stubborn ones we are forced to have recourse to more powerful penetrating ones.

As for Alkalies, I don't believe that ever any one was cured by them of this Distemper, although I have known some People that have taken a vast sarrago of Testacious Powders, &c. without any good effect at all, which afterwards has been done in a small time, with a small quantity of proper Acids.

Before I conclud, I shall insert a Preparation of Antimony, the which I have found of extraordinary use, in the most inveterate Scurvies.

Take

Take of white Flowers of Antimony eight ounces, Volatile Spirit of Tartar two pound, put them into a large Bolt-head, and digest in a gentle heat in Balneo, for fourteen days, then take out the Bolt head and let it cool by degrees, when cold, decant the clear Tincture from the Feces : Then put the decanted Liquor or Tincture into a long Cucurbite, fit a head to it exactly, and with a gentle fire, destill off the one half, the remaining part keep for use, in a Bottle well stopped with a glass stopper. That which comes over by Distillation, may be kept for the same use.

To make the Volatile Spirit of Tartar.

Take

Take of very fine and clean Rhenish Wine, Tartar twenty pound, put it into an Iron-pot, fit to the said Pot, a Moors-head made either of Iron or Copper, the which fix to a large Worm fixed in a Tub of Water; fit a very large Recipient to the end of the Worm. Lute all the joynts except that of the Receiver, with very good Lute, and when the Lute is very well dried, make a very gentle fire under your Pot at first, which increase by degrees, and continue as long as any thing will come over; then let the fire go out, undo your joynts and take out the Caput Moruum; which Calcine to Greyness, in a large Crucible; then put three pound of the calcined Caput Moruum into a long Cucurbite, then
pour

pour upon it, all the Spirit that came over, being before hand freed from the fetid Oyl that came over with it, by running through a Funnel, lined either with wet brown Paper, or Cotton: Put on your Head, which lute very well with a wet Bladder, then put to a Receiver, which lute also very well, and with a moderate fire, draw off one half of the Spirit. Pour out that which remains in the Cucurbite as useles, and put in two pound more of the Calcined Caput Mortuum, upon which pour the Spirit before drawn off, and with a gentle fire draw off one half, which keep for the aforesaid use. It being a noble volatile Spirit of Tartar, and is as noble a Menstruum as most I have met with, not only for this use, but several others.

Of the aforesaid Tincture, I use to give about four, six, eight or ten drops, according to the age and strength of my Patients, Morning and Evening, in about half a pint of strong Infusion or Decoction of Juniper Berries, without any precedent Purgation; this Medicine performing that office, where there is occasion; it answering every thing that is generally said of a true Panacea; sometimes working by Vomit, sometimes by Stool, and sometimes by Urine, but mostly by a gentle Diaphoresis or Sweating: And I have once known it to cause a Salivation, without any of the ill Symptoms that usually attend it, when raised

raised by Mercurial Medicines. Whoever hath a mind to see more of this Tincture, may read *Glauber Op. Mineral. Par. Prim.* from whom I had it, though I have something varied from him. I have found it of great use, not only in the Scurvy, but many other Chronical Distempers, as Rheumatisms, Sciaticas, Dropsies, &c. and by some few Observations that I have made, I believe it may do great things even in the Gout it self.

Before I conclude, I shall mention one Objection more against my opinion, made to me by several, and that is, that a more than ordinary saltness,

is

is to be perceived in the Blood of Scorbutick Persons, and this saltness they take to be an Acidity : But if they would but enquire a little narrowly into the matter, instead of finding it to be an Acid saltness, on the contrary they will find it to be, a Lixivious, Alkalious one.

C H A P. III.

Of the Gout.

I Shall here make only some few Observations concerning the Gout, it being cousin German, to that of the Scurvy. Though I must confess the Gout to be a Distemper I have not had much to do with, but by that little I have seen of it, I am fully convinced, that it is not from Acids, as is generally said, that, that troublesome Distemper is occasioned.

I have observed considerable large Nodes, in which are sometimes

times contained a hard chalky substance, and of which I have seen large quantities extracted, which by many experiments I have found to be as much an Alkaly, as either Crabs Eyes, Corral, Pearls, &c. the which I suppose no man will deny.

Now it being granted, that the matter contained in the aforesaid Nodes, to be an Alkaly, how is it possible for this Distemper, to proceed from Acids, when in those very parts where the Distemper most violently rages, there should be produced such large quantities of an Alkalious substance. For if the Distemper proceeds from Acids, as 'tis generally

F agreed

agreed upon, the Patient need not clog his Stomach with Alkalies as is generally practised, there being a Remedy already placed in the part affected : And I verily believe that the only reason why this Distemper has been accounted amongst the *Opprobria Medicorum* has been from the mistaken Notions, they have had concerning it.

But if men will still persist to assert, that this Distemper proceeds from Acids, and at the same time own the chalky substance before-mentioned, which is only the Morbifick Matter indurated, to be an Alkali, they must tacitely believe the Doctrine of Transmutation, though

though openly they are ashamed to own it, and will laugh at, and ridicule those that do.

But this is not all, for suppose the Acid Matter causing this Distemper to be transmuted into a chalky, alkalious substance, the Distemper must never more pretend to come in or near the part, where this substance is lodged, it being placed as a Centry to guard it off: Nay, the Blood at times, must all, or at least, great part of it, pass through the Part or Parts, where this chalky substance is lodged, by which means a man would think, it should be sufficiently guarded from any more growing Acid;

and so by consequence, when the chalky Nodes are once settled, people have not the least reason for the future, to be in fear of the return of their Distemper: The contrary of which a great many honest Gentlemen to their sorrows experience. So that a man would think, that these very Nodes alone, were sufficient, if there were no other reasons to be given for it, to satisfy any man, who is master of his reason, that Acids are not, and that Alkalies are, the cause of this Distemper. And if the Blood abound with too great a quantity of Alkalious Particles, the giving of Alkalies must be preposterous, is being to add

add Fuel to the Flame ,
which instead of quenching
or extinguishing , makes it so
much the greater.

It may not be amiss to
take notice , that few peo-
ple are troubled with the
Gout , but those who drink
large quantities of Wine or
some other generous Liquors,
abounding with vinous Spirits ;
so that the Blood and other
Juices , being impregnated
with the said vinous Spirits,
these Spirits meeting with the
volatile, alkalious Salt, of which,
even the Blood of sound Peo-
ple, is never destitute : By
the means of which Salt, the
vinous Spirit is coagulated ,
and

and turned into that substance (or somewhat like it) which *Helmont* calls his *Offa Alba* , which coagulated substance , not being capable of moving with the Blood and Juices through the small Vessels , causes obstructions and violent pains , and in time , by the addition of other gross , terrestricus Particles , into the beforementioned chalky substance.

By the foresaid coagulation of vinous Spirits with the volatile Alkaly of the Blood , may a very good reason be given , for the Generation of the Stone in the

Bladder and Kidneys : And Mr. Boyle tells us (being what *Helmont* had before done) that having obtained some Stones of a certain *Lythotomist*, he put them into a Retort , and exposed them to a strong fire , and found that the better half consisted of volatile, alkalious Salt , like unto that obtainable from Humane Blood, and a considerable quantity of heavy Oyl, so that it is plain, that the Generation of the Stone, is not from Acids, but Alkalies.

From which may be inferred, that it is not, from
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the Acidity of Rhenish Wine, that makes the drinking of it pernicious to Gouty People, but from its abounding with spirituous Particles, more than most other Wines.

CHAP.

C H A P. IV.

Of Rheumatisms.

THIS is another of the Distempers generally said to proceed from Acids in the Blood; but very falsely, as I hope fully to make appear; I having had to do with multitudes under this Distemper, and that (thanks to God) with very good success.

I shall not trouble my self to investigate the original causes of this Distemper, which are various, that being foreign to my design; but shall immediately

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diately proceed to the business I have undertaken.

First of all ; Having by the fire analyzed the Blood of Rheumatick Persons, I have found it to abound more with Alkanious Particles, than that of sound Persons ; but not the least grain of any Acid substance in it ; from which alone it may readily enough be inferred, That it proceeds not from Acids, but, on the contrary, from Alkalies.

But it may be Objected , From whence proceeds that syziness and viscosity of the Serum, which is generally observed in the Blood of Rheumatick

matick Persons, if not from Acids? For we know that Milk, which is a sort of Serum of the Blood, let it be in never so fluid a state, by the addition of any Acid, though never so gentle, a great part of it will be immediately conglutated and turned into Curds.

To which I Answer, That the foresaid Objection is altogether invalid; the viscosness that is observed in the Serum of the Blood, being quite different from that of the Curds in Milk: Though there are those substances contained in Milk, that are fit to make both Blood and Serum; but Milk is a much more compound liquor than

G 2 the

the Serum of the Blood ; so the comparison being made between subjects so vastly different, it is of no validity at all.

But suppose the comparison between the two Liquors good ; What agreement is there between Curds, and a substance like unto Gelly ? None at all that I know of.

But if instead of curdled Milk, they had made the comparison between the inviscated Serum and Hartshorn Gelly, they had been in the right on't ; for indeed I know not any two subjects more fit to be compared together. But then this comparison will not in the least prove the inviscation of the
Serum

Serum to proceed from Acids, but on the contrary from Alkalious Particles; for every body that knows what Harts-horn is, know that the reason of its making a Gelly, is from its abounding with volatile alkalious Salts. And for the same reason it is, that Calves Feet, Izing-glass, Ivory, &c. make Gellies.

By what I have said, I hope, I have freed Acids from occasioning the viscoufness of the Serum of the Blood in Rheumatifms; which viscosity if it can be once taken off, every one knows that the Distemper immediately vanishes. But this is not to be done by Alkalies, that ever I could see, although

I have given them in large quantities. But it is expeditiously to be done by proper Acids, such as the before-mentioned Tincture of Antimony, &c. and Calibiats.

But here I expect that People will think that I have caught my self in a trap, when I bring in Calibiats amongst the number of Acids, when they are generally owned by all Mankind to be Alkalies; to confirm the truth of which, they tell you it is plainly manifest, that filings of Iron will make as great an Effervescency with all sorts of Acids, as any of the Alkalies I have mentioned; therefore it is plain I must be
much

much in the wrong, in reckoning Calibiats amongst the number of Acids.

From this difficulty I shall endeavour to extricate my self, and likewise to prove, That Iron or Steel, until it be converted into a Vitriol (and every body will allow Vitriol to be an Acid) cannot act upon the Blood or Serum to cause any alteration in it, nor so much as any way enter into the Veins or Arteries.

It is the Custom of Skilful Practitioners, before they give Steel Medicines, to enquire of their Patients, Whether they are sensible of any Acidity in their Stomachs; in which part

I do allow Acids oftentimes to abound, and that exorbitantly. If they are sensible of any Acidity there, it is then found necessary to give Iron or Steel, without any Preparation at all, by reason that by the means of the Acids in the Stomach, it is turned into a Vitriol, and so made capable of being carri'd into the Blood, whereas in such cases, if it hath been before satiated by a precedent Preparation, it hath little or no effect at all. On the other hand, if there be no sensible Acidity in the Stomach, Iron or Steel being given Unprepared, are carri'd off by Stool, without the least alteration, or
any

any part of it being admitted into the Blood.

All or most of the Preparations of Steel that I know of, that are good for any thing, are performed by the means of Acids, which tend to the dividing of their parts, and turning them into a Vitriol. Now according to the difference of the Acids used, the result is a different sort of Vitriol, which hath different operations : But on the contrary, Alkalies do so lock up the Body of Iron, as to make it unfit to be taken as Medicine, by reason of its extraordinary hardness and firmness of Texture.

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The Preparations of Steel I generally use are, that which goes by the name of *Dr. Willis's Preparation of Steel*, and is now almost every where to be had; which altho it be grown common, is, for all that, no despicable Medicine; and that which follows.

Take of filings of Steel, or rather Iron, very clean and free from dust, one pound and half, Sal Armoniac two pound; make the Sal Armoniac into very fine Powder, then mix them well together in an iron or stone Mortar, then put the mixture into a moist Cellar, and let it stand a week. Then put it into a very large

large Crucible, which cover with a piece of Tile, afterwards put the Crucible into a Charcoal Fire, which increase by degrees, till the Crucible be almost red hot ; after it has continued in this state about an hour , take away the Fire, and let your calcined matter cool by degrees ; when cold, take it out of the Crucible, and make into fine Powder in a glass or stone Mortar, then put it into a Bottle with a wide mouth, which stop with a glass Stopple , and keep in a warm place.

These two Preparations properly given, and with convenient Vehicles, I have known of

of very great use in Rheumatisms. And the last, when all other Medicines have proved ineffectual, has never once failed me in the most inveterate Obstructions of the *Menses* in Women.

Besides the forementioned Preparations of Steel, I have frequently found Cinnaber of Antimony, or even common Cinnaber, mixt with a due proportion of *Gum Guaiaci*, and given in large quantities, to be of great use, not only in confirmed Rheumatisms, but even in Sciatica's of long standing, by the means of which alone I have known many cured.

I did

I did formerly believe Cinnaber of Antimony, and common Cinnaber to be Alkalies ; but since I have more nicely inquired into it, I find that by a peculiar management, a large quantity of an acid sulphurous Spirit may be obtained from it.

Before I conclude upon this Head, it will not, I suppose, be amiss, to observe one thing more about the Preparation of Steel before-mention'd, and that is, that whilst it is kept dry, and in a Powder, it is one of the greatest Deoppilatives or openers of Obstructions imaginable : But let it be put into a Cellar, and run *per deliquium*,

quium, which it will do in a few days, fifty or sixty drops of the said Oil *per deliquium*, given twice a day in a strong Decoction of Oak Bark, I have of late found never to fail me in stopping a seminal Flux, which all People will allow has hitherto been found as difficult a thing to do as any whatsoever. Some People having told me, that they supposed the Stipticity to proceed from the Decoction of Oak Bark only, I have purposely tried it alone, and altho I own Oak Bark to be a Noble Stiptic, and to do Wonders, the Decoction being taken in at the mouth, and by way of Clyster, in common,

simple

simple Diarrhea's, and even
sometimes in bloody Fluxes;
yet in the case before-men-
tioned it would do nothing at
all; but adding some drops of
the Oil of *Mars* to the De-
coction, it had soon the desired
effect.

CHAP.

CHAP. V.

Of Consumptions.

I Have little to say upon this Subject, but that I have seen great numbers of People under this Circumstance, to whom have been given large quantities of Alkalies, and all sorts of Balsamics, and those things called Pectorals, without the least advantage in the world; tho I have seen others who have had the manifest signs of a confirmed *Phtisis* or Consumption, who by the plentiful use of proper Acids, have
been

been reduced from a state of dying, to that of perfect health.

My Reasons in short, according to my best Observations, for the use of Acids, and the disuse of Alkalies, are as follow.

The Globules of the Blood by reason of so great a quantity of Acrid, Alkalious, Lixivious Particles, being mixed with it, being broken and confusedly mix'd with the Serum, together with the Serum, admitted into the small Glandules of the Lungs, and not being capable of being discharg'd, cause Inflammations here, and by consequence Hectick Fevers, which always precede and accompany a
H Pthisis

Pthifis or Consumption. Now by the use of Alkalies and Balsamicks, these extravasated Globules are so far from being thrown out, and the depraved state of the Blood from being altered, that instead of it, the state of the Blood is made much worse by Alkalies; and by Balsamicks the Pustles occasioned from the extravasated Globules being admitted into the small Glandules, are brought to Suppuration, the necessary consequence of which is an Ulceration, and when so tender a part as the Lungs are, is once Ulcerated, he must shew himself an Artist indeed that can heal such Ulcers.

Now

Now proper Acids being given in due time, confirm the Texture of the Blood, and reduce the Serum to a state of fluidity, by which means the Fever and Inflammation of the Lungs are taken off, and the extravasated Globules of Blood, by means of a thin Serum, assisted by its quick motion in that part, when in a fluid state, are by degrees carried off, and so the Pustles disappear.

But it may be Objected, How comes it to pass, that the broken Globules of Blood, you so often mention, come to be admitted along with the Serum into the Glands of several parts, and that they cannot by the

H 2 same

same reason be carried off to the parts designed, along with the Serum or Lympha, as it is stiled, when it once comes into the Lymphatick Vessels?

To which I Answer, That when they are first admitted into the Glands, I mean the broken Globules, coming just out of the extremities of the Arteries, and being then very hot, the sides of them are lax, and so in some measure capable of being compressed or squeez'd together; but being once admitted into the Glands, the motion of the Serum from them, through the Lymphatick Vessels, being very slow, they soon grow cool, and so more firm;

firm ; and by reason of the different figure of these broken Globules from the Pores, by which the Serum is to pass from the Glands to the Lymphatick Vessels , they are not suffered to pass through with the Serum, as in the forementioned instance of the mixture of Oyl and Water, so that the Globules being extravasated and without motion, corrupt ; from which corruption proceeds all the ill symptoms I have mentioned to accrue from the broken Globules of the Blood being admitted into the Glands.

But to return to the business of Acids ; to confirm the truth

H 3 of

of what I have said, besides my own Observations, I remember *Riverius*, that famous Practitioner, somewhere says, That he hath several times cured a confirmed Pthisis or Consumption, by giving only of large quantities of Conserve of Red Roses, well Acidulated with Oil of Sulphur *per Campanam*.

And now I am speaking of Oil of Sulphur *per Campanam*, give me leave to add an account that *Helmont* gives of it in his *Arbor Vitæ*; which altho it hath not any immediate relation to the Point in hand, yet may be pertinent enough to shew the good effects of Acids,
in

in keeping the Blood in a good Texture, and by that means prolonging Life, and preserving us from Diseases. *Moses*, who perhaps understood the Mysteries of Nature as well as any man, and who was guided by an unerring, infallible Spirit, says, that in the Blood is contained the Life. Now the Texture of the Blood being confirmed, and its Globules whole, must go a great way towards the prolongation of Life : But on the contrary, the Texture of the Blood being spoiled, and its Globules broken, (which they are by Alkalies) must in great measure shorten Life, and occasion Diseases.

In the Year 1600. says *Hil-*
mont, a certain Military Man,
 being burthen'd with a great
 number of small Children,
 made his Complaint to me
 that he was 58 years of age,
 and that if he should chance
 to die, his Children must go
 begging from door to door. He
 ask'd of me something, whereby
 his Life might be preserved. I
 being then a Young Man, and
 commiserating his Condition, I
 considered with my self, that a
 lighted Match of Brimstone
 would preserve Wine from
 Corruption; therefore I con-
 cluded with my self, that the
 Acid Oil of Sulphur did neces-
 sarily so contain this Flame of
 Sulphur,

Sulphur, and all the Smell of it, that it self was nothing else, meaning the Acid Spirit or Oil, but the Fume of Sulphur it self, imbibed by its Mercurial Salt. Last of all, I was confirmed that the Blood was the Wine of our Lives, and that being preserved, if it did not occasion long Life, it would at least in some measure be prolonged, by our being guarded from Diseases, and free from Pains. Wherefore I gave him a Pot full of the Distilled Liquor or Oil of Sulphur, and likewise taught him the manner of Distilling the said Oil from kindled Brimstone. I furthermore bid him, that every

ry

ry Meal, in the first draught of Beer he drank, that he should take two drops of the said Liquor, and by no means exceed it ; I being satisfied that two drops did contain a large quantity of the Fume of Sulphur. The Man followed my advice, and at this time walks about the Streets of *Bruxels*, being Sixteen hundred forty one : And which is more than all, for the whole Forty years he never laboured under any Distemper, although once by a Fall upon the Ice, he broke his Leg near the Knee, yet all the time he was under Cure, he was free from a Fever. He continued slender and lean , and
 although

although in want of all Necessaries, lived to be thus Old. The Name of this Old Man is *John Mass*, who served in the Bed-Chamber of the Bishop of *Ypre*, when Count *Egmont* and *Horne* were beheaded, and was at that time Twenty five years of age.

The Truth of this Relation need not in the least be doubted, the Man being alive and well when it was wrote. By which Instance it is plain, that Acids are not the Cause of Diseases, but Preservatives against them; and whatever is a Preservative from Distempers, by the same parity of reason must be of use to repel them,

them, when we labour under them.

A signal Instance of which, I remember I have somewhere read of a Person who purpose-ly suffered himself to be bitten by a Viper, in order to try the good Effects of Monsieur *Char- ras's* Volatile Alkalious Salt of the same Animal, in preventing and taking off the Symptoms that attend the Biting of the said Creature. The Volatile Salt and other Antidotes were in large quantities given, but all in vain; for instead of allay- ing, the Symptoms so increa- sed, that nothing less was to be feared, than the loss of the poor Man's Life, To the best
of

of my remembrance, nay, I think I may be positive, that it was in the Wrist where he was bitten; but for all the Volatile Salts, and other Antidotes, in a very little time his Arm was swelled so big, and so high, that Amputation could do him no service; nay, all the By-standers, which were many, gave him up for dead. At last a certain Person advised the giving of him large quantities of only so simple an Acid as Juice of Lemmons; which immediately abated the Symptoms, and retrieved him from all manner of Danger.

We

We live in an inquisitive Age, wherein People have more sense than to take things upon trust: The obtaining of the Blood, both of well and distemper'd Persons, is no difficult matter; and I desire no greater justice to be done me, than that People would themselves Experiment the truth of what I have said: And if after trial it be found that the Blood of persons in any of the before-mentioned cases, hath any thing of Acid in it, I will own my self in the wrong. But shall never take the least notice of such scurrilous Answers as I have been used to, nothing of that nature being in the least
valid

valid with me, that is not confirmed by well-attested Experiments.

THE CONCLUSION.

IT is, I suppose, allowed by every body, that Sea-Salt is an Acid, and for that very reason only it is, that we who eat such large quantities of Flesh are not able to live without it. For all sorts of Flesh abounding with large quantities of volatile Alkalious Salts, if the said Alkalious Salts were in some measure locked up and mortified by the means of
Sea

Sea Salt, or which is all one; that which is the product of our *English* Brine-pits, they having their saltness from the same origine, which is Currents of Water passing through great Rocks of Salt; which late discoveries have made appear to be both in *England* and many other parts of the World: As for instance, one in *Cheshire*, whose Vein is Twenty Yards thick, and may be traced for a great many Miles together; which very Rock alone is sufficient to Impregnate almost an Ocean of Waters.

There is some reason to believe, That the People before the Flood did not eat Flesh,
but

but liv'd altogether upon Vegetables, as Fruits, Herbs, and Roots; which, I suppose, was one great reason of their Longevity. And it may be observed that in *Herefordshire*, and other Countries abounding with Fruit, the People are longer Liv'd than in those Countries that want them. Now had the Antedeluvian People eaten Flesh as we do now, I can't imagine what they would have done for Salt; for supposing Dr. Burnet's Hypothesis true, (the which I think there is not the least reason to doubt of, his Arguments to prove it being to me Unanswerable) I suppose their Rivers must have
I been

been altogether void of salt-
ness; and how they could come
at salt any other way, consi-
dering the state of their Earth,
I can't imagine: And for them
to have eaten Meat without
Salt, must necessarily have
greatly prejudic'd their healths,
and shortned their lives. For
we have seen in the late *Irish*
Wars what destruction and de-
solation was made in our Ar-
my by eating Meat without
Salt, of which at one time
there was a scarcity, whole Re-
giments having been swept a-
way together with Fevers and
Fluxes. But the Antedeluvian
People living upon Vegetables
they had no need of Salt, there
being

being a sufficient quantity of Acidity in them to confirm the Texture of their Blood , and preserve them from Diseases.

Since I have been mentioning Sea Salt, I shall make bold to trouble you with a relation of a strange and accidental Cure wrought upon a Person in a Tympanitis, given over as Incurable by the most eminent Physicians of *England* , by barely immersing her two or three times over Head in Sea Water.

The Person was Daughter to an Eminent Citizen of *Worcester*, she had labour'd under a Tympanitis Three or Four years ; her Father applied

I 2 himself

himself to most of the Eminent Physicians for advice, but all that they could do signified nothing. Her Father who is a Corpulent man, has several times told me, that her *Abdomen* was swelled so big, that his Cloak would not lap round her, and she was then not above Ten years of Age. It happened one Morning that her Mother, Two Brothers, her self, and a Maid-servant, were Bitten by a little Dog they had in the House, which was grown Mad. Advice was presently given by Dr. Johnson, an Eminent Physician then living in *Worcester*. That they should all go to the
Salt

Salt-Waters to be dipp'd ; observe by the way, the efficacy of Salt Waters in preventing the dreadful symptoms that attend those People Bitten by Mad Dogs : The Mother, her Two Sons, and Maid-servant, were prepared to go, but she did not design to take her Daughter with her, supposing her not capable of living till she came to the Journeys end. The poor distressed Child seeing them all going away without her, called to her Father, telling him, He took care of every body else, but valued not what became of her ; upon which her Father being moved with compassion, was re-

solved she should go, let the event be what it would. Accordingly she was carried down, and when it came to her turn to be dipped, it was as much as two men could do to immerge her over Head : After they were all dipped, they were carried to an adjacent House and put to Bed ; she had not been in Bed many Hours, but she called for a Pot, and pissed several Quarts, even more at that one time, than she had done of some Months before ; and when they returned to *Worcester*, which was within few days, she run out of the Boat herself to her Father without any help, when she

She had not been able so much as to stand of a year or two before. To be short, without any other help, she was perfectly cured of her Tympanitis, and is now a Tall, Slender, Healthy Woman, as any I know.

I have mentioned this thing because I find it not any where taken notice off, and may be of service to others. Nay, I am told that a certain obscure Person in *Herefordshire*, has Cured several by the same method, to his own great Advantage, and withal says, that it never once failed him.

I must beg the Lady's pardon for writing this Relation

without first asking her leave ;
but since I have no other end
in it but to serve Mankind, I
doubt not but I shall be easily
excused.

Helmont positively says, and
as I my self have found it true,
That Spirit of Sea Salt, which
is an exalted Acid, is a certain
Remedy in the Strangury ;
which is a Distemper general-
ly said to proceed from Acids ;
which if it doth, instead of
being Cured it must be high-
ly Exasperated by Spirit of
Salt, the contrary of which I
have frequently Experimented.
Helmont somewhere else says of
it, *Est namque Acidissimus, nec
sibi par habet remedium extinguen-*
dis

*dis ardoribus Urine, etiam presente
in Vessica Calculo.*

I remember that not long since an Eminent Physician told me, That bare Juice of Lemmons would sooner take off the Heat of Urine, in People that are, as we commonly call it, Clapp'd, than Emullions, or any of the things commonly used; which since I have found true; and have also found that the Urine of such Persons abounds more with Volatile Alkalious Salt, than that of sound People: Upon which I have been induced to try, whether the Acid Spirit of *Guaiacum*, which that Wood affords in large quantities, would not be

be more prevalent in the Cure of confirmed Poxes, than the bare Infusion or Decoction of the said Wood; the which in conjunction with Cinnaber of Antimony, or common Cinnaber, and Gum *Guaiaci*, or else with the before-mentioned Tincture of Antimony, has seldom failed me in Curing the most confirmed Poxes without Salivation.

I am very apt to believe, that if the rectified Acid Spirits, obtainable from most, if not all Woods, were made use of, they would be found to be great Specificks in most Distempers, especially Chronical ones.

And

And since I have mentioned Specificks, I do own that it may be rationally enough Objected, That my Doctrine of Acids does mightily thwart with that of Specificks; since there are many Specificks that are neither Alkalies nor Acids, yet seldom fail of Curing Distempers, as rationally to be supposed to proceed from Alkalious Particles abounding, as any whatsoever.

To which I Answer, That I have only brought my Doctrine of Acids upon the Stage, as a general one, in opposition to the general and pernicious Doctrine of Alkalies. For should I deny the Doctrine of Specificks,

Specificks, I must deny matter of fact, which is what I shall never do, till I am totally deprived of my Reason.

There is a little Herb called *Paronichia cum foliis Rutaceis*, or Whitlow Grass, with leaves like Rew; the which the Honourable Mr. Boyle recommends as a Specifick in the King's Evil: Which Herb I have immersed both in moderately Acid and Alkalious Liquors, yet could not perceive any Luctus or Effervescency; yet I have known it do wonders in the forementioned Distemper, and that without having the least sensible Operation: I shall instance in one particular.

A poor

A poor Woman in *Worcester* having one only Child of about Ten years of Age, who by Weaving of Bone-lace maintained both her Mother and her self: The Mother of the Child came one day to me making a great complaint that she was undone? I asked her the cause of her complaint; she told me, her Child who kept her in her old Age from Begging, had for Two Years had Scrophulous Tumors in and about her Privities, and that about Three Months before, one of the said Tumors began to Ulcerate, and that now the Ulcers were crept in to her Body, which made her
 incapable

incapable of Sitting. I went
 immediately with the poor
 Woman to see her Daughter,
 and found what she said was
 true, the poor Girl being the
 most miserable spectacle I ever
 saw. I remembring what
 Mr. Boyle had said concerning
Paronychia; and being suffici-
 ently satisfied that there was
 not the least reason of doubting
 the truth of any thing he had
 said, when he related it as mat-
 ter of Fact upon his own Know-
 ledge; I was resolved to try it
 upon this Girl; I first of all
 Purged her Three or Four
 times with *Calamelanos*, *Rezin*
 of *Jallap*, and *Cremor Tartar*; I
 afterwards gave her Two large
 Handfuls

Handfuls of the said Herb dried, ordering her to put it into Two Gallons of small Beer after it had done working, and let it stand Six Days, and then to drink it for her constant Drink : She continued to take it for about Two Months, in which time, without applying any thing to the Ulcers, save Clean Cloths, both Ulcers and Tumors vanished, and she continued well till I left *Worcester*, which was two years after the Cure was performed, and is so still for ought I can hear, I having several times enquired after her.

Another Instance of the Operation of Specificks, without

out their being either Alkalies or Acids, is that frequently experimented Decoction of *Mercury*, after having been Boyled for a considerable time in Water, has been found not to have lost the least Grain of its former Weight, or imparting either Taste or Colour to the Water; yet this Water in which the Mercury has been Decocted, has not failed of killing and bringing away Worms, when other Celebrated Medicines have failed.

Likewise *Crocus Metallorum*, and some other Preparations of Antimony, being barely infused in Wine, without losing the least Grain of their Weight,
or

or imparting either Smell, Taste, or Colour, to the Wine in which they are infused, yet never fail of giving the Wine a violently Emettick Quality. I my self have at several times poured above Twenty Quarts of Canary upon one and the same Ounce of *Crocus Metallorum* Powdered, and found that the last Quart, was as violently Emettick as the first; altho after nice trial I could not find that the Powder was diminished one Grain in its Weight, or had, as is before-observed, caused the least sensible Alteration in the Wine.

K

The

The *Cortex*, that Noble Specifick in all Intermitting Fevers, I don't apprehend to perform its office as it is either an Alkaly or Acid; though being mix'd with Acids, it performs its work much better than without them.

It is a general complaint against that Noble Medicine, and is the only occasion of deterring some People from the use of it, That being given in never so large quantities, especially in Quartans, it only puts off the Fit for a time, but does not totally eradicate the Distemper, it returning after a certain

tain period. To obviate which inconvenience, I have been advised to give it after the following manner, which seldom or never fails of preventing the return of the Distemper.

Two Hours before the Fit, I give a gentle Emettick; after that has done Working, an Opiate; when the Fit is over, I give the quantity of a large Nutmeg of the following Electuary with the Decoction, and repeat it every Four Hours, for Five or Six Days, ordering my Patients to eat something of easy Digestion, within an Hour after each Dose:

K 2 After

After the expiration of Five or Six Days, I give it only first in the Morning, and at Five in the Afternoon for a Week, Eating something after each Dose.

Take of Pick'd Peruvian Bark One Ounce, make it into a very fine Powder, and with good Syrup of Lemons, as much as is sufficient, make an Electuary.

Immediately after each Dose of which, I give about a Quarter of a Pint of the following Decoction :

Take

Take of Pick'd Peruvian Bark
 Half an Ounce, Gentian
 Roots Two Drams, Centaury
 Two Pugils, Spring-Water
 Two Quarts; Boyl to the
 Consumption of One Half,
 when Cold strain out and
 keep for use.

By this Method, I have
 known Three or Four Ounces
 of the Cortex perfectly Cure
 Quartans without any Re-
 lapse, after People have ta-
 ken a Pound or more after
 the common Method, which
 has only put by the Fits for
 a time.

K 3

The

The Reasons, as I apprehend, why this method of giving the *Cortex* should be more prevalent than that commonly taken, are, the Particles of the *Cortex* being very firm, the Medicine being taken, and the Patient Fasting Three or Four Hours after it, it slides out of the Stomack into the small Guts, and so on; the small Guts being empty, there is not pressure enough to squeeze but a very small quantity of it into the Lacteal Vessels; so that the greatest quantity of it is carried away as Excrement: But the Patient eating something of easy Digestion,

gestion, within so small a time as an Hour after it, that eaten, is turned into *Chyle* before the Particles of the *Cortex* can be cartied off, and the *Chyle* being of a Viscous Nature, retains the small Particles, and carries them along with it into the Blood; so that the Blood is more impregnated by one Dose this way given, than with Twenty Doses without presently eating after it.

As a confirmation of the truth of what I have said concerning the firmness of the Texture of the Particles of the *Cortex*; if you boyl it never so well, the clear De-

coction will not Cure a *Quotidian* or *Tertian* Ague; whereas the *Cortex* after it hath been well Boiled, being reduced to Powder, and given after the foresaid manner, will cure a *Quartan*.

It would be a great Blessing to the Commonwealth of Physick, if there were a faithful Record kept of all the Cures wrought by Simple Medicines, by which means Physicians might arrive to a certainty of Curing more Distempers than that of Agues; which thing I never expect to see, so long as tedious nonsensical Compositions are depended on.

I don't

I don't remember that any of the Ancient or Modern Botannick Writers, have mentioned the Leaves of *Affarabacca* to have any other quality besides that of a violent Purger by Vomit and Stool: But Mr. Pitt, a late Eminent and Learned Apothecary of *Worcester*, my singular good Friend, told me, that he found it to be one of the most noble Purgers of the Head, that he ever met with, having a different Operation from any other Medicine that he ever met with; that the Snuffing up of Three, Four, or Five Grains of the Powder of the dried Leaves at Night

Night going to Bed, would on the Morrow, without disturbing rest that Night, but rather causing it, occasion the discharge of a vast quantity of Serous Matter from the Glands of the Nose; nay would sometimes last for Two or Three Days, without being in the least a Sternutatory.

By the repeated use of this Powder alone, I have known the most violent, confirmed Head-Aches imaginable taken off, after they have eluded the efficacy of the most Noble Celebrated Cephalicks: But this ought to be taken notice of, That
 whoever

whoever takes this Medicine must confine themselves to their Houses, and keep as warm as if they had taken the most violent Purge.

I have been told by a certain Gentleman, who uses a great quantity of the Powder of this Herb amongst his poor Neighbours after the aforesaid manner, that he was once induced to use it in a Deafness of long standing; he gave the Patient Four or Five Grains to Snuff up into each Nostril every Fourth or Fifth Night, and ordered that Three Grains should every Night with a Quill be blown into each Ear; and
in

in a Fortnight's time the Party recovered his Hearing as well as ever in his Life.

I could expatiate a great deal more concerning simple Specifick Remedies. But what I have already said is enough to satisfy the World, that I allow the Doctrine of Specificks; nay I think it ought to be lamented that it is not more Cultivated.

I have been told by some Intelligent Persons, who have much conversed with the Natives of *West-India*, that the Doctrine of Specificks is mightily Cultivated by those Barbarous People, by which means they have arrived to a certainty in
Curing

Curing most Distempers, and that to see People of One hundred and twenty and a Hundred and thirty Years of Age, is as common a sight, as in *England* to see People of Sixty. Now what a Shame is it for us, who live in a Learned and Inquisitive Age, to be outdone by those Barbarous and Illiterate People; nay, for ought I know, the greatest part of our Skill we had from them, or a People altogether as Ignorant.

The Physicians of *Europe* are not arrived to so great a certainty in any one thing, as in the Cure of Agues; And who may we thank for that but the Poor *Indians*, who imparted to

us the use of their famous
Bark?

From whom had *Hypocrates*,
that Father of Physicians, his
Skill, but by Collecting the
common Observations ; the
which only it was that made
him so very famous throughout
the World. But the state of
Nature being in a great mea-
sure altered in that long track
of time since he lived, and the
difference of our Climate from
that wherein he lived, makes
that his Observations don't al-
together hold good with us.
So that if we will arrive to any
certainty in our Art, we must
make nice Observations of our
own.

Helmont

Helmont in his Treatise of Fevers says, *Quisque Artificum facit, quod promittit, Statuarius nempe Statuam, Calciarius Calcios indubiè parat, solus autem Medicus nil audent ex arte spondere suâ, quia Nititur Fundamentis incertis, per accidens duntaxat, subinde, atque dolosè proficiuus.* Which in English is, That there is a certainty in all Professions, but that of a Physician; and it is altogether our own faults, for want of due Observation, that we act upon such uncertainties as we do.

But to return to the business of Acids; What great benefit does Mankind, in general, receive from Mineral Spring-Waters?

Waters? All of which are allowed to be Acids; and according to the difference of the Acid contained in them, they have different Operations. Some of them, as *Acton*, *Epsome*, *Dulidge*, *Northall*, &c. abounding with Aluminous, as well as Vitriolick Particles, work by Stool. Others, as *Tunbridge*, *Astrop*, *Ilmington*, &c. Abounding with Vitriolick Particles only, are Alteratives, and are generally carried off by Urine. The *Bath-Waters*, abounding with Nitro-Sulphureous Particles, have a different Operation from any of the former, but are generally carried off by Urine, tho sometimes by sweat.

There

There is scarce a Person labouring under any Chronical Distemper, or ill habit of body, (whose Fortune or Business will permit them) but at the proper season are sent to one of the forementioned Places ; and I verily believe, to our no great Credit, that more People are freed from Chronical Distempers by the use of Mineral Waters, than by all other Prescriptions : Though I am very well satisfied , that Mineral Waters, not being properly taken , do frequently a great deal of mischief.

Besides the service done to Mankind by drinking of Mineral Waters, what advantage does
L accrue

accrue to many People labouring under some sort of Nervous Distempers, &c. by merely Bathing themselves in the Nitro-Sulphureous Hot Baths.

There is also a new way of Sweating, by the means of the Volatile Acid Steams arising from the evaporating Brine, in the making of Salt at our *English* Salt-pits, lately invented by Mr. *Henry Hodges* of *Droyt-Wych* in *Worcestershire*, by the means of which, several very great things have been done, even in cases where the Bath, Common Hummums and Bagnio's, have proved altogether ineffectual. I am sorry that I am at a place where I cannot procure

procure a number of Experiments to insert in this place, which might be of service to Mankind: But to supply the place of them, I shall add something done in a little Bathing-House I erected of my own, wherein I imitated, if not out-did, the way of Sweating at *Droyt-Wych*; but my many Avocations hindred me from the prosecuting of it.

I procured a quantity of the Virgin Salt, from the Salt-Rock in *Cheshire*, and as I had occasion, I dissolved a convenient quantity of it in Spring-Water, making a Brine as strong as that obtainable from the Brine-Pits; with this Brine

L 2 I filled

I filled a large Iron Pot, which had Pipes of Wood went from it to a little Room over head, made convenient for People to Sweat in: Under my Pot I made a fire, which both warmed the Room and made the Brine to boyl, and from the boyling Brine arose such quantities of Steams as filled my Room, which, when it was warmed and full of steams, was fit for use: I had, beside the large Pipes which supplied the whole Room, several others of different lengths, by the means of which I more forcibly conveyed the Steams to any particular part. By this way of Sweating, I have known a Gentlewoman

Gentlewoman Cured, as was also one at *Droyt-Wych*, of an Inveterate Leprosy, which had eluded the Efficacy of all other Medicines and Baths. It rarely failed taking off the most violent Old Aches and Pains. In all Relaxations of the Nerves and Tendons, I have never met with any thing comparable to it. To be short, I found it as good as the *Bath* in most things, and in many out-did it; and I believe Mr. *Hodges*, computing the time he has used the way of Sweating at his Brine-Pits, and the number of People he has had, can produce a greater Catalogue, and more considerable Cures

L 3 wrought,

wrought, than hath been at the
Bath.

I hope by the means of Experimental Philosophy, so happily begun and encouraged by that Admirable and never-sufficiently to be valued Mr. Boyle, to see the Art of Physick arrive to as great Certainty and Perfection, as other Arts and Sciences are arrived to. For, as I before observed, by Chymically Analyzing the Blood and Juices, both in their Natural and Morbid state, we may arrive to some certainty in the Knowledge of the Cause of Distempers; which I am afraid we have hitherto been greatly ignorant of; and when
 once

once the Causes of Distempers are throughly known, the Cure of them will be no difficult matter.

I shall conclude in the Words of that Industrious Philosopher by the Fire, *Helmont*, in his Treatise *De Lithiasi*: *In nostris furnis legimus, non esse in Natura certius Sciendi genus ad cognoscendum per causas radicales & constitutivas rerum; quamdum Scitur quid, quantumque in re quaque sit contentum. Ita quidem ut cognitio & connexio causarum, non constent clarius, quam cum res ipsas ita recluseris, ut coram prodeant ac velut tecum loquantur. Siquidem entia realia, duntaxat stantia, in suis primordialibus,*

& succedentibus seminum Principi-
 pius, adeoque in verâ entitate Sub-
 stantiali dant notitiam & proferunt
 causam cognoscendi Naturam Corpo-
 rum, Mediorum & extremitatum.
 Quippe sunt causa generationis, ex-
 istentiæ & permutationis, secun-
 dum ipsorum radicem, quoniam
 (teste Raimundo) utcunque Logi-
 cus habeat profundum ingenium Ar-
 gumentabile, aut Naturale, de re-
 bus extrinsecis: tamen nunquam
 per aliquam rationem quæ venit ad
 sensum, poterit directè cognoscere,
 nec judicari, cum quali natura, aut
 virtute, per fortitudinem intrinse-
 cus, habeat Multiplicatio grani,
 crescere super terram, nisi pro si-
 militudinario, ab observatione de-
 sumpto. Nec sciet unquam, quo-
 modo

modo semen in terra pullulet, crescat, & coligat fructum: Nisi cum doctrina experimentalis prius intraverit in nostram Philosophiam Naturalem, & non Sophisticam, sermocinalem illam, quæ nascitur Logicis, per diversas præsumptiones Phantasticas: qui cum prognosticationibus sequelarum, contra vim Naturæ, faciunt multos pertinaciter errare, in Sophisticatione mentis. Quia per nostram Mechanicam Scientiam, intellectus est rectificatus, vi experientiæ, respectu Oculi, & veræ notitiæ mentalis. Imo experientiæ nostræ, stant supra probationes Phantasticas Conclusionum; ideoque nec eas tolerant: Sed omnes alias Scientias ostendunt Vivaciter intrare in intellectum. Unde deinceps

ceps intelligimus per Naturam, in-
 tus illud, quod est, & quale est.
 Quia per talem Scientiam, Intel-
 lectus stat denudatus Superfluitati-
 bus & erroribus, qui ipsum ordina-
 riò remouent à veritate, propter
 præsumptiones & præjudicata, cre-
 dita in conclusionibus. Hinc enim
 nostri se direxerunt ad intrandum
 per quamlibet scientiam, (in om-
 nem experientiam) per artem,
 juxta Naturæ cursum, in suis uni-
 vocis principiis. Spagyria enim so-
 la, est speculum veri intellectus:
 Monstratque tangere, & videre ve-
 ritates, earum, in claro lumine.
 Nec fert argumenta logicalia;
 quia nimis remota, & longuinca,
 de claro lumine. Ideoque habet
 tabula smaragdina: Per hoc genus
 demon-

demonstrandi, fugiet à te omnis obscuritas, & acquiritur tibi omnis fortitudinis, fortitudo fortis, vincens omnia subtilia, & solida penetrans, propterea vocor Hermes Trismegistus, habens tres, (id est omnes) Partes Philosophiæ, atque totius mundi Telesmon; Hæc ille inter orare ergo, & pulsare, supponitur Medium in Naturalibus, quaerendi per ignem.

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